

# BILATERAL COOPERATION FOR PROMOTING OCEANOGRAPHIC DATA AND INFORMATION MANAGEMENT OF THE EASTERN MEDITERRANEAN AND BLACK SEA



Atanas Palazov<sup>1</sup>, Athanassia Iona<sup>2</sup>, Asen Stefanov<sup>1</sup>, Aggelos Lykiardopoulos<sup>2</sup>,  
Veselka Marinova<sup>1</sup>, Pelopidas Karagevrekis<sup>2</sup>, Nadezhda Valcheva<sup>1</sup>, Efstathios Balopoulos<sup>2</sup>

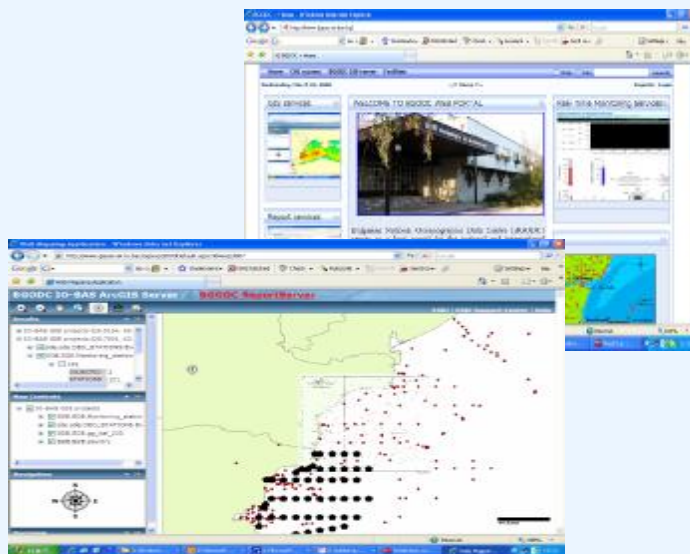
<sup>1</sup> - Bulgarian National Oceanographic Data Centre, Institute of Oceanology - BAS, Varna, Bulgaria

<sup>2</sup> - Hellenic National Oceanographic Data Centre, HCMR, Athens, Greece

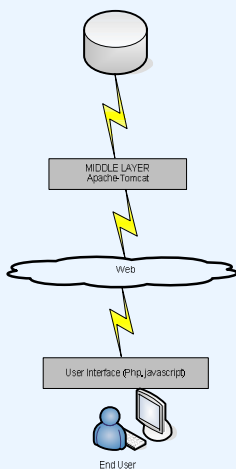
## Background and Overview

Oceanographic research undertaken in the Eastern Mediterranean and the Black Sea has been the subject of several projects supported by national agencies and international organizations [e.g., European Union, Intergovernmental Oceanographic Commission (IOC) of UNESCO, NATO, etc.], during which a large volume of diverse oceanographic data have been collected. However, although the Eastern Mediterranean and the Black Sea are two interconnected sub-basins greatly influencing each other, the exchange of scientific information and data between the various research groups working in the regions has been somewhat limited.

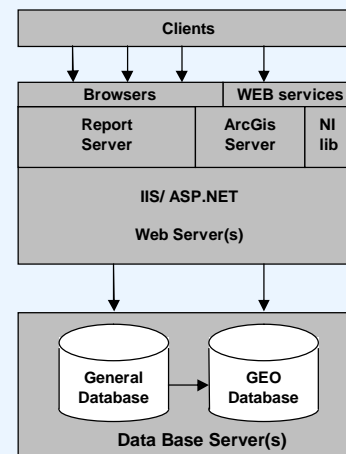
The present contribution is related to recent activities aiming at promoting management of oceanographic data and information of the Eastern Mediterranean and Black Seas. These activities have been undertaken within the framework of the Protocol for bilateral Scientific and Technological Cooperation between Bulgaria and Greece for the years 2005-2007. The overall objective of the collaboration, in which are involved the National Oceanographic Data Centres of Bulgaria (Bulgarian Oceanographic Data Center, BGODC) and Greece (Hellenic National Oceanographic Data Centre, HNODC), is the establishment of scientific and technological basis for the development of a system for banking and managing of a great diversity of marine data and information, for the both regions.



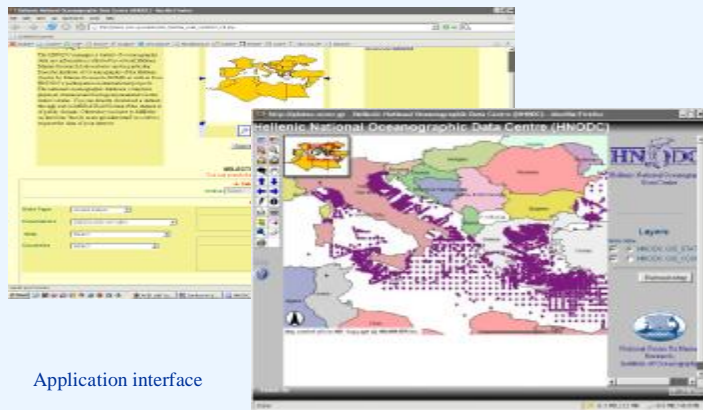
BGODC Web portal and application interface



System Architecture of the system of the HNODC



Structure of system of the BGODC



Application interface

## Conclusions

The first stage of the scientific and technological co-operation between research groups of Greece and Bulgaria in the field of management of oceanographic data and information of the Eastern Mediterranean and Black Seas was implemented successfully. Significant experience on the modern technologies was obtained in order to build an advanced integrated interoperable system for access and visualization of environmental data and information over the Mediterranean and Black Seas, via the Internet and the WWW. The integration and visualization of data into an easily accessed interoperable networked environment is needed in many disciplines for both scientific and management purposes.

## References

Iona, A. Lykiardopoulos, V. Lakes. 2007. On the development of a Geospatial Web Services System for oceanographic data at the Mediterranean and Black Seas. NATO ARW "Challenges for the Black Sea operational oceanography to increase the regional environmental security", Balchik, 25-27 September 2007.